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COMPARATIVE STUDY ON BRONZE DRUMS

An Ethnoarchaeology of Southwest China & Southeast Asia
(铜鼓的比较研究:西南中国与东南亚的民族考古学调查)

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I am hereby pleased to recommend this dissertation for the evaluation by examiners for the award of Doctoral Degree (PhD) in Archaeology.

Date: April, 2015

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Abstract

The hourglass-shaped bronze drums are the most unusual assemblage of Bronze-Iron Age culture ever found in Southwest China and Southeast Asia. Dian and Dong Son were the two important centers of this culture. Bronze drums were used in the rituals and prayers for fertility, as well as receptacles for seashells. It brought a significant change in the social life of the Metal Age community. Well-known for its rich and varied contents, lively and suggestive forms, unique and masterly casting technique and strong local characteristics, the bronze drum occupies a special place in the historical development of these regions.

The main objectives to be fulfilled at the end of the present research are broadly classification of bronze drums based on physical typology, fix the different drum types into a chronological framework, analysis of decorations and interpretation, study the change and continuity of drum casting technology and composition, find out the sites of drum distribution and movement, and finally, discuss the controversial issues and ethnicity of the bronze drum. To testify the established hypothesis, the three types of ethnoarchaeological methodology viz. physical typology, technological typology and basic classical ethnoarchaeological methods such as secondary data analysis, fieldworks and participation observations etc are being used.

Examine the late prehistory and early historic times overcoming the limited focus, compared and correlates of different types and decorations, knowing technological development and how to produce them, hybrid culture shown by the cultural interactions, and affiliation issues of bronze drums of ethnics are some of the significance of the study.

There are four major classifications of bronze drums based on Heger - Type I (Shizhaishan, Dong Son, and Lengshuichong), Type II (Beiliu and Lingshan), Type III (Karen, Laotian or Ximeng) and Type IV (Zunyi and Majiang). Wanjiaba drum is placed ahead as pre-Heger or the 0-phase. As a derivative of Heger, Chinese classification had also provided chrono-typological evolution of the earlier drums. Similarly, Type I drum of the Dong Son culture had sub-classified into five groups (A, B, C, D and E) and six phases (1a, 1b, 2a, 2b, 3a and 3b). Bronze cowry-container is considered to be an evolved type of Heger Type I drum. Heger classification also includes Gong Nekara as an evolved Heger Type I and Nekara Pejeng Type as a local derivative. Thus, present chronological scheme can be fixed within the two time spans - ancient period (700 B.C to the coming of Han dynasty in 2nd century A.D) and late period (after Han to 20th century, perhaps till the Qing dynasty).

Though the decorations are distributed all over the tympanum and resonance case of the drum, profuse decorations are found to be depicted on the tympanum rather than surface of the resonance. In all the type of drums, slightly raised sun burst pattern or star adorns the center surrounded by the concentric bands of decorations. The most popular motifs on the early drums consist of geometrical designs, long boat and feathered boat's men, various species of birds, animals and plants form. The frogs are also surmounted on the edges of tympanum of later drums. Most elaborated two and three dimensional depictions can be seen on the Ngoc Lu, cowry drum-containers and Karen drums. The two dimension decorations are schematic while three dimensional figurines are realistic in style.

The technology used for making bronze drums can be view as development of methods already established in the Southeast Asia including Yunnan. The metallurgical tradition incorporates the skills ranging from clay piece-mold, lost-wax casting and enhanced by applying decorations using repousse, gold amalgam gilded and semi-precious stone inlaid. Larger drums showing obvious mold seam indicates that clay piece-molds remained the dominant technique throughout the Dian culture till the first century CE, whereas the Dong Son bronze drum exhibits the advance techniques and the great skill in the lost-wax casting of large objects. It is also reveals that varying proportions of copper, tin, lead and sometimes arsenic radically changes the properties of the alloy, not least the hardness, color and casting properties.

The broad distribution of bronze drums is one of the strongest indications that the cultural interaction between Southwest China, Northern Vietnam and Southeast Asia were widespread during this time. Though scholars hardly reach the ethnicity of the bronze drum, Dian, Zhuang, Miao, Yao, Dong Buyi, Shui, Gelao, Wa, Lac Viet, Karen, Islanders of Southeast Asia are responsible for the bronze drum production and used. They possessed a common set of similar cultures broadly known as Tai culture.

In addition to stylistic decoration, technology, distribution and ethnic interaction, it can be concluded that all the spectacular elements such as local beliefs, magical power and folklore of ethnic groups towards the bronze drum, are far more important than just a story of scientific digging and research. The folklore part related to drum has always been and still is an essential element in the life and thought of the ethnics from ancient till the modern times. Thus, ethno-archaeological study of bronze drum is quite relevant in the present context and needs special attention.

Keywords: Bronze drum, Classification, Decorations, Technology, Distribution, Ethnicity

摘要

在中国西南部和东南亚发现的沙漏型铜鼓是青铜-铁器时代文化最不寻常的一类器物。滇和东山是铜鼓文化的两个重要中心。铜鼓在仪式中用于祈祷丰收，铜鼓也用作储存海贝的容器，它为金属时代聚落的社会生活带来巨大的变化。铜鼓因它丰富且多变的纹饰、生动又含蓄的器型、独特而精湛的铸造技术以及显著的本土特色而为人熟知。铜鼓在这些地区的历史发展中占据着一个特殊的位置。

本文的主要目的是对铜鼓进行类型学分类、确定不同类型的铜鼓的时间编年框架、分析纹饰和寓意、研究铜鼓铸造技术和成分的演变、通过考古发现理清铜鼓的传播路径，最后，讨论铜鼓的族属和一些有争议的问题。本文运用三种民族考古学的方法来研究上述问题，分别是物质类型学、技术类型学和基础古典民族考古学方法，如二次数据分析、田野调查、参与观察等。

探索晚期史前史和早期历史时期的历史要重点关注如下几点：不同的类型和纹饰之间的关联、技术的发展以及如何制造器物、文化互动造就的文化多样性、铜鼓种族的归属问题，这些是需要研究的重要问题。

根据黑格尔的研究，铜鼓主要被分为四种类型。I 型鼓包括石寨山鼓、东山鼓和冷水冲鼓，II 型包括北流鼓和灵山鼓，III 型包括克伦鼓、老挝鼓或西盟鼓，IV 型鼓包括遵义鼓和麻江鼓。万家坝鼓被定位为前黑格尔型，或者说是 0 阶段。中国学者在黑格尔研究的基础上发展深入，提出了早期铜鼓的发展序列。类似地，东山文化的 I 型鼓已经被次分为五组 (A, B, C, D, E) 和六段 (1a, 1b, 2a, 2b, 3a, 3b)。青铜贮贝器被当做是由黑格尔 I 型鼓进化而来。黑格尔的分类也包含把共·内卡拉鼓作为黑格尔 I 型的变体，而内卡拉佩京型鼓由本地鼓演变而来。所以，目前的铜鼓编年可以被修正为两个时间段：一个是史前（公元前 700 年至公元 2 世纪的汉代），后一个时期（汉代以后至 20 世纪，可能直到清代）。

尽管纹饰布满鼓面和鼓身，但是在鼓面仍然有比鼓身表面更多的纹饰。在所有的铜鼓中，带芒的太阳纹或星纹在中心，周围环绕着同心圆晕圈。早期铜鼓最流行的纹饰包括几何纹、长舟和羽人纹、各种各样的鸟纹、动物纹和植物纹。晚期的铜鼓也有立体的蛙居于鼓面的边缘。在越南玉缕鼓、贮贝器和克伦鼓上可以看到两三种最精致的纹饰。当有三种纹饰是写实风格时，就会有两种写意风格的纹饰穿插其中。

用于制造铜鼓的技术可以被看作是工艺的进步。包括云南在内的东南亚都有制造铜鼓的技术。冶金学传统包含的铸造方法有泥型合范法、失蜡法；装饰方法有镀汞合金、镶嵌半宝石，立体纹饰采用先分铸附件再焊接于鼓身的方法。较大的铜鼓有明显的范缝，这说明泥型合范法是滇文化至 1 世纪主要的铸造技术。然而，东山铜鼓运用失蜡法铸造大型的器物展现了更先进的技术和工艺。铸造方法的改变也揭示了铜、锡、铅的比例变化。另外，有时砷能彻底的改变合金的性质，尤其是硬度、颜色和铸造性能。

铜鼓的广泛传播是那个时期中国西南部、越南北部和东南亚之间文化传播最显著的标志。尽管学者们还没研究清楚铜鼓的族属，但是滇族、壮族、苗族、瑶族、东布依族、水族、仡佬族、佤族、骆越族、克伦族以及东南亚岛民都曾生产、使用铜鼓。他们普遍拥有一种相似的文化，这被广泛的认为是傣文化。

除了纹饰风格、技术、传播和民族互动之外，铜鼓身上还蕴含着本土信仰、宗教神力和民俗学的突出因素，这些远远重要于一个科学发掘和研究的故事。民俗学与铜鼓有关是因为铜鼓从古至今都是生活中的一个关键部分。所以，铜鼓的民族考古学研究是和当前的生活环境息息相关的，需要给予特别的注意。

关键词：铜鼓，分类，纹饰，技术，传播，族属

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